

INSTRUCTION

CAUTION

- Read all instructions before use.
- May need to purchase optional parts for some applications. (See the optional parts section in this manual.)
- Use NANO gauges for the intended purpose of use.
- DO NOT disassemble NANO gauges.
- DO NOT leave NANO gauges in high heat.
- DO NOT hit, drop and/or give a shock on NANO gauges.

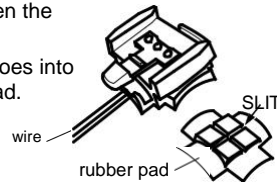
- Avoid contact with gasoline, brake fluid or other chemicals.
- Rubber mounting is recommended for vehicles with much vibration.
- After installation, check to see if all the parts are correctly installed, and to see if all the screws are properly tightened.
- Periodical inspection of the installed parts is required every 500km(300mile). If anything unusual may be found while driving, pull over at a safe place to check.

MOUNTING INSTRUCTION

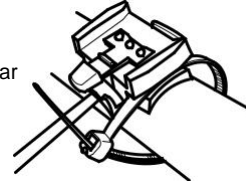
Place the rubber pad between the bracket and handlebar.



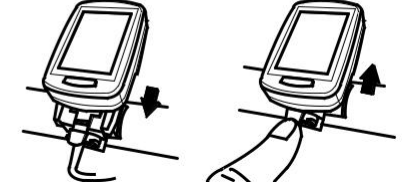
Be sure that the wire goes into the slit of the rubber pad.



Mount the bracket on handlebar by two cable ties



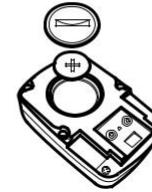
To attach the gauge unit, slide the unit into the bracket. To detach, press the knob and slide the unit out.



BATTERY REPLACEMENT

Replace battery(CR2032) when low battery warning icon flashes.

* Positive(+) side of battery to face upward

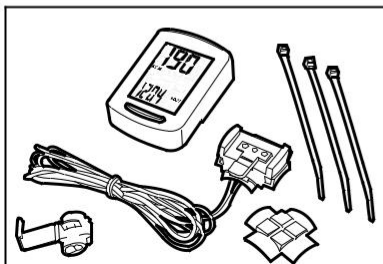


NANO-TACH

PRODUCT FEATURES

- Tachometer 0-20,000 rpm
- Hourmeter (Not Resettable), Range : 0.0-9999.9 Hours
- Resettable Hourmeter, Range : 0.0-9999.9 Hours
- Maximum rpm memory and recall
- Clock, AM/PM Display ONLY
- Low Battery Warning
- Auto On & Off
- Detachable Unit
- Simple Installation and Operation
- Replaceable Battery (CR2032)
- Waterproof Housing

COMPONENTS



Components	Q' TY
Gauge Unit	1pc
Bracket & Wires	1pc
Rubber Pad	1pc
Cable Tie	3pcs
Wire Coupler	1pc

NANO-TEMP

PRODUCT FEATURES

- Engine Temperature Gauge, Range : 0 - 270°C (32 - 518°F)
- Ambient Temperature Gauge, Range : 0 - 60°C(32-140°F)
- Maximum Temp. memory and recall (Engine Temp.)
- Clock, AM/PM Display ONLY
- Low Battery Warning
- Auto Off, User-settable "Auto-Off Temp."
- Detachable Unit
- Simple Installation and Operation
- Replaceable Battery (CR2032)
- Waterproof Housing

COMPONENTS



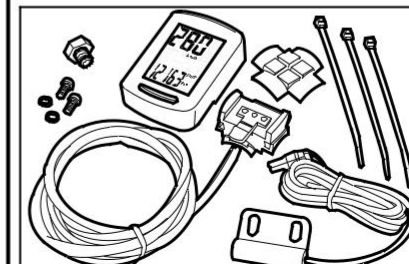
Components	Q' TY
Gauge Unit	1pc
Bracket & Wires	1pc
Rubber Pad	1pc
Cable Tie	3pcs
Temperature Sensor	1pc

NANO-SPD

PRODUCT FEATURES

- Speedometer
- Odometer, Range : 0.0-99999.9 km/mile
- Trip Odometer (Resettable) , Range : 0.0-99999.9 km/mile
- Clock, AM/PM Display only
- Low Battery Warning
- Auto On & Off
- Detachable Unit
- Simple Installation and Operation
- Replaceable Battery (CR2032)
- Waterproof Housing

COMPONENTS

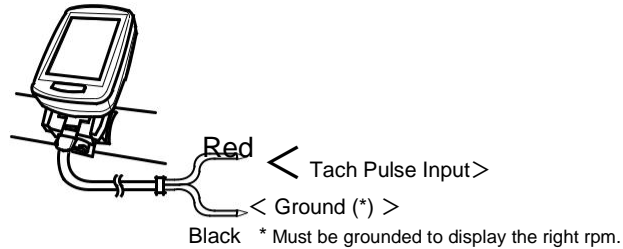


Components	Q' TY
Gauge Unit	1pc
Bracket & Wires	1pc
Rubber Pad	1pc
Cable Tie	3pcs
Speed Sensor & Magnet	1set

NANO-TACH

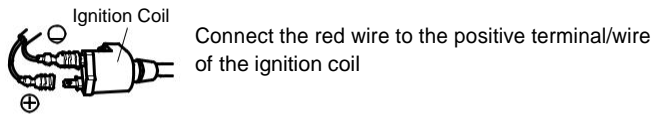
WIRING INSTRUCTION

Keep wires and wire connectors away from the heat and water.

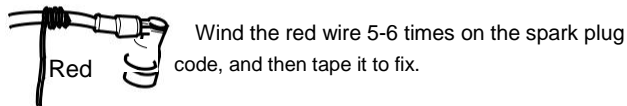


DETECT TACH PULSE

From Ignition Coil



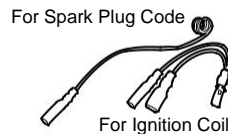
From Spark Plug Code



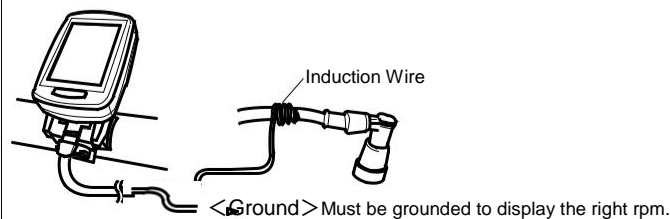
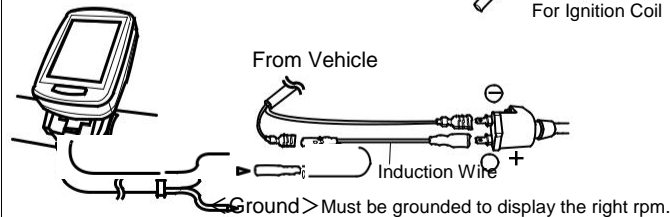
OPTIONAL PARTS

RPM Induction Wire Set, #87170

This optional wire set will simplify the wiring work and NO wire splicing is necessary.



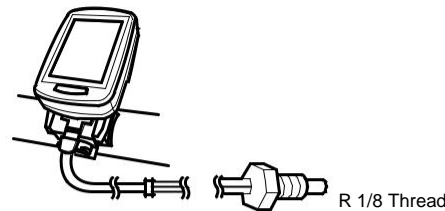
HOW TO USE



NANO-TEMP

WIRING INSTRUCTION

Keep wires and wire connectors away from the heat and water.

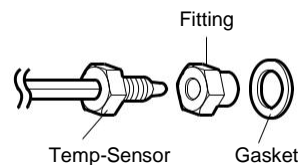


ATTACH THE TEMP. SENSOR

Water/Oil Temp. Sensor : Thread R 1/8
Attach the sensor on radiator, oil hose, or engine. May need to use an optional adaptor (sold separately). Check the following optional parts section.

OPTIONAL PARTS

To measure oil temp. from oil drain bolt, check the thread size of the drain bolt and choose an appropriate fitting from the following options.



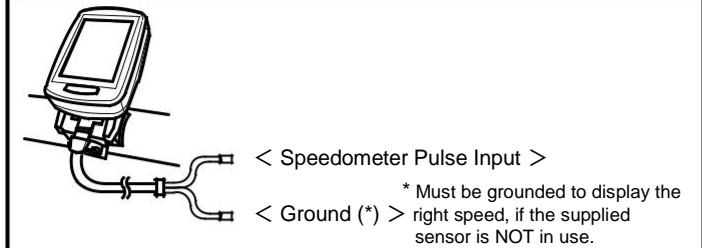
	M12xP1.5	#85018
	M14xP1.25	#85019
	M14xP1.5	#85020
	M16xP1.5	#85021
	M18xP1.5	#85022
	M20xP1.0	#85023
	M20xP1.5	#85024

Sensor Fitting (R1/8) for oil drain bolt

NANO-SPD

WIRING INSTRUCTION

Keep wires and wire connectors away from the heat and water.



DETECT SPEED PULSE

From speed sensor of the vehicle

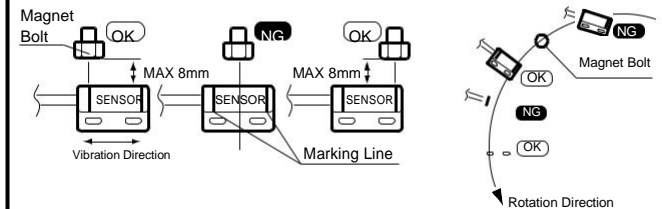
Attach the red wire to the electrical speed sensor of the vehicle.

! DO NOT have to use the supplied speed sensor, if the vehicle comes with electrical speed sensor. And detect pulse from the vehicle's speed sensor.

From the supplied speed sensor (Reed Sensor)

Attention Speed Sensor & Magnet Installation

- Align the center of the magnet to either of sensor marking line.
- Installing the sensor parallel to the vibration direction creates optimal anti-vibration effect.
- Make sure the gap between the magnet and the sensor is within 8mm.



OPTIONAL PARTS

If the vehicle comes with mechanical speedometer cable, use a speed pulse converter from the following options. The converter turns mechanical movement to electrical pulse.

Speed Pulse Converter

#87143	
Φ 15 Insert	
#87429	
M12 Female Thread	
#87041	
Φ 18 Insert	
#87755	
Φ 10 Insert	
#87430	
Universal	

If the vehicle does NOT come with an electrical speed sensor, and if the supplied speed sensor could NOT be installed on the vehicle for some reason, use the Proximity

Speed Sensor.
The Proximity Speed Sensor works with any kind of metal and DOES NOT require mounting a magnet on the vehicle. It sends electrical pulse as a metal comes close and goes away.

SPEED SENSOR PROXIMITY TYPE

< PART# 87038 >

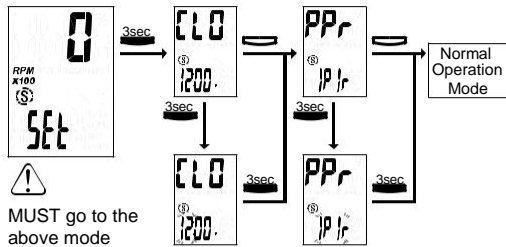


NANO-TACH

Button Icon's Definition

= Press button **3sec** = Hold down button for 3sec.

SETUP



MUST go to the above mode showing "Set" before entering the setup mode.

Adjust Clock

To modify hour, press button. To go to the next setup mode, hold down button for 3 sec.

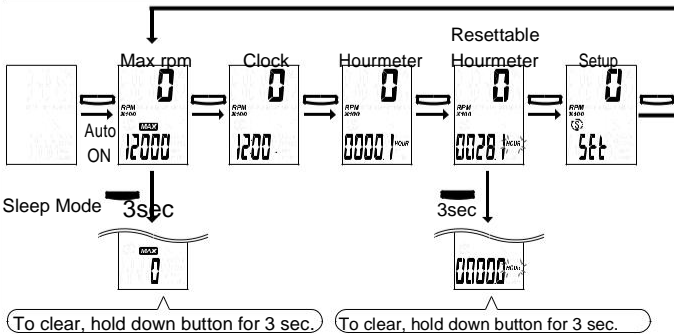


To modify Hour, press button in 2 seconds. It automatically goes to Minute-setup if no button is operated for 2 seconds.

Pulse Per Rotation(PPR) Setup

"1P1r", "1P2r" and "2P1r" are automatically displayed in order. To confirm, hold down button for 3 sec. while the intended PPR is displayed

NORMAL OPERATION MODE



To clear, hold down button for 3 sec.

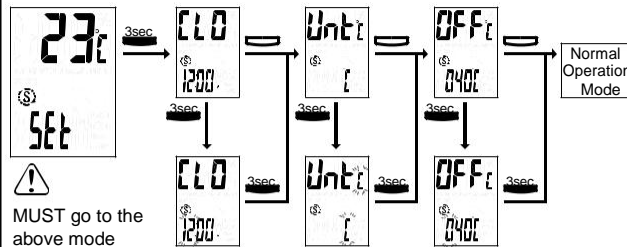
To clear, hold down button for 3 sec.

NANO-TEMP

Button Icon's Definition

= Press button **3sec** = Hold down button for 3sec.

SETUP



MUST go to the above mode showing "Set" before entering the setup mode.

Adjust Clock

To modify hour, press button. To go to the next setup mode, hold down button for 3 sec.



To modify Hour, press button in 2 seconds. It automatically goes to Minute-setup if no button is operated for 2 seconds.

Temp. Unit Setup

"°C" and "°F" are automatically displayed in order. To confirm, hold down button for 3 sec. while the intended unit is displayed

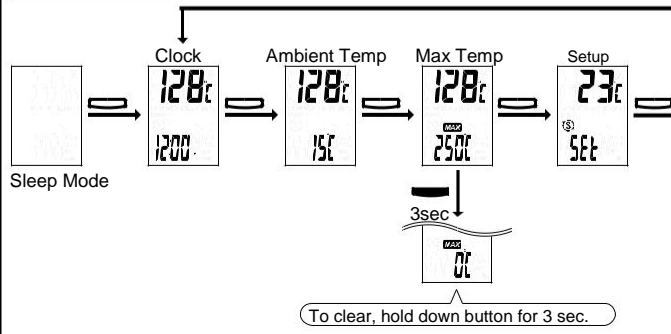
Adjust "Auto-Off Temp."

<< Adjustable Range : 10-100°C(50-212°F) >>
The unit automatically goes off 5 minutes later if the temp. is lower than the "Auto-Off Temp." To save battery, it is highly recommended to setup the "Auto-Off Temp." higher than the area's highest air temp.

How to adjust

To modify flashing digit, press button. To confirm and to go to the next digit, hold down button for 3 sec. After confirming the unit digit, it goes back to normal operation mode.

NORMAL OPERATION MODE



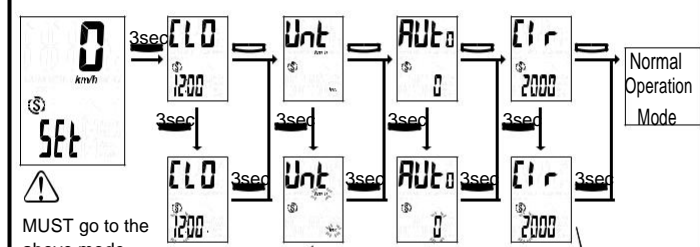
To clear, hold down button for 3 sec.

NANO-SPD

Button Icon's Definition

= Press button **3sec** = Hold down button for 3sec.

SETUP



MUST go to the above mode showing "Set" before entering the setup mode.

Adjust Clock

To modify hour, press button. To go to the next setup mode, hold down button for 3 sec.



To modify Hour, press button in 2 seconds.

Speed. Unit Setup

"km/h" and "MPH" are automatically displayed in order. To confirm, hold down button for 3 sec. while the intended unit is displayed

★ Auto Speed Calibration

While "0" is flashing, drive exactly one km/mile. Stop the vehicle and hold down button for 3 sec. to finalize the setup. The lower number display starts counting the number of pulse obtained from vehicle while driving.



★ To calibrate the speed, either "Auto Calibration" or "Wheel Circumference Input" must be done. If the vehicle comes with electrical speed sensor, "Auto Calibration" is recommended.



★ Wheel Circumference Input

Find the circumference in millimeter by either measuring the wheel diameter or by rotating the wheel and measuring it.

"Here is the formula to obtain wheel circumference from wheel diameter in millimeter.

Wheel Diameter(in millimeter) x 3.14 = Circumference (in millimeter)

Wheel Diameter(in inch) x 3.14 x 25.4 = Circumference (in millimeter)

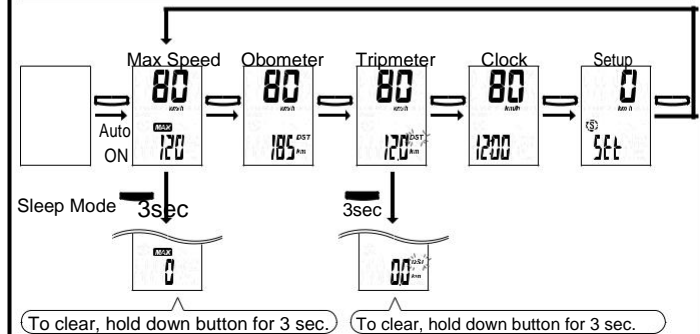
Input the wheel circumference as per the following instruction.

To modify flashing digit, press button.

To confirm and to go to the next digit, hold down button for 3 sec.

After confirming the unit digit, it goes back to normal operation mode.

NORMAL OPERATION MODE



To clear, hold down button for 3 sec.

To clear, hold down button for 3 sec.